

Consistency and Change in Participatory Action Research: Reflections on a Focus Group Study about How Farmers Learn

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The purpose of this paper is to reflect on our efforts to balance consistency in our multi-year participatory action research study with the need to adapt our research protocol to what we are learning along the way. While both are important, we share several examples of how our flexibility and openness to adapt our protocol to our research findings has led to methodological refinements and serendipitous learnings. We discuss implications for both agricultural education and research. Key Words: Participatory Research, Focus Groups, Agricultural Education, and Extension Education

Our research team is in the middle of a three-year, multi-phase, multi-state participatory action research study to discover more about how farmers learn. We hope to use our findings to help Extension agents and other agricultural educators develop more meaningful ways to communicate information to farmers about sustainable agriculture. The purpose of this paper is to reflect on our efforts to balance consistency in our research methods with the need to adapt our research protocol based on what we are learning along the way.

Our method is participatory on a number of levels. In Phase One of our study, in Virginia, we surveyed 48 Extension agents and specialists who helped us shape the questions we used in focus groups with farmers from distinct groups (e.g., alternative agriculture producers, traditional dairy farmers, young farmers, female farmers). Then a steering committee of four farmers and four Extension agents and specialists helped us shape and conduct our research, analyze our data, and disseminate our findings. After our farmer focus groups, we conducted a focus group of Extension agents and specialists to determine their perspectives on how farmers learn. In additional sessions with agents and specialists we asked them to reflect on our initial findings and the meaning of these findings for their own work. In the second year of the project, we are replicating our participatory steering committees and focus group methodology in two other states, Tennessee and Louisiana. In Year Three we will develop scholarly products and

educational materials, disseminate those products, and conduct education workshops for Extension educators.

Background

Why Participatory Action Research?

In participatory action research, researchers empower participants to become research partners (Piercy & Thomas, 1998). The advantages of a collaborative, less hierarchical approach to research is that the practical knowledge that emerges is usually a better fit for those for whom it is intended, since they themselves helped generate and make sense of the findings. In this case, since farmers, Extension agents, and specialists have been part of the planning and research processes, they are also more invested in the dissemination and implementation of the findings, and feel empowered in the process.

Participatory action research is based largely on Paulo Freire's (1970) *Pedagogy of the Oppressed*, and has been extended through the work of many others (e.g., Fals-Borda & Rahman, 1991; Hall, 1994; Park, Brydon-Miller, Hall, & Jackson, 1993). Participatory action research (PAR) was initially used to empower oppressed groups in Third World countries, but it is increasingly being used in developed countries (Reason, 1994). In PAR, one seeks to know the needs of the community and to translate them into actions that may be used directly by the community. The participatory process itself raises the consciousness of participants so that they might move toward constructive action. Participatory action research emphasizes collaboration between researchers and participants that empowers, motivates, increases self-esteem, and builds solidarity (Piercy & Thomas, 1998).

Focus Groups

While PAR research methods can be diverse (e.g., community events, puppet shows, video productions), in the present study we used focus groups within our participatory framework to understand how farmers preferred to learn and how Extension agents and specialists might better meet their needs. Focus groups involve an interactive group discussion of four to 12 people on a particular topic within a permissive, nonthreatening environment (Krueger & Casey, 2000). Researchers use focus groups to understand participant opinions on a particular topic (Kitzinger & Barbour, 1999; Morgan, 1992). The open-response format and synergistic, snowballing effect of group discussion often results in rich ideas that would be impossible through individual interviews or more quantitative methods (Stewart, Shamadasani, & Rook, 2007). Focus group results are usually practical and participants typically enjoy the focus group experience (Piercy & Hertlein, 2005).

Focus groups have certain advantages that other participatory methods may not. Because the farmers give feedback in a group, they can build upon each other's answers (e.g., "Oh, yeah, that happened to me, but for me it was this way...") and evaluators can gather a lot of information in a short time. Farmers in our focus groups were also sharing best practices with each other to help improve their success.

Focus group research is also becoming more popular in the academic literature, as evidenced by a three-fold increase in the number of focus group studies in academic journals over recent years (Kitzinger & Barbour, 1999). In agricultural research, researchers are using focus groups to understand perceptions of agriculture (Holz-Clause & Jost, 1995) and to evaluate youth development programs (White, Arnold, & Lesmeister, 2008) and agricultural education materials (Nordstrom, Wilson, Kelsey, Maretzki, & Pitts, 2000). More and more, researchers are modifying focus group procedures to meet their own needs. For this reason, what is currently known as a focus group takes many different forms (Krueger & Casey, 2000).

Learning Styles and Instructional Methods in Sustainable Agriculture

Extension educators often are frustrated when farmers do not internalize, apply, or stick with the sustainable agricultural practices they recommend. Some of the disconnect between the agent's teaching and the farmer's learning may be due to the degree to which Extension agents and specialists deliver information in a way that fits or does not fit a particular farmer's preferred learning style.

Downing and Finley (2005), for example, examined what private forest land owners wanted in educational programs. Landowners' preferred learning styles, it turns out, that were hands-on. They also preferred weekend, and evening meetings. Landowners said they wanted to learn information they could apply. Downing and Finley discovered that occupation was a key variable to consider when determining a date and time for a program. They concluded that Extension educators, when planning a program, will be more effective if they involve their clients and consider their needs. It seems reasonable to assume that, if Extension educators use learner centered instructional methods that tap into farmers' interests and needs, farmers are more likely to learn information that is useful to them.

Today the sustainable agriculture movement is collecting an increasing amount of support and acceptance within mainstream agriculture (Ingles, Campbell, Chaney, George, & Bradford, 1997). Röling and Pretty (1997), in examining Extension's role in sustainable agriculture development, raised the question of whether farmers actually want to implement sustainable agricultural practices. Röling and Pretty's "three major lessons for Extension" begin with lesson one, emphasizing the need for sustainable agriculture. Extension agents can do this by making visible the state of the environment and the extent to which current farming practices are untenable. Extension also needs to demonstrate the feasibility of sustainable practices and give the farmers the tools to monitor their own implementation. The second lesson revolves around using the farmer's knowledge and working together with the farmer. The third lesson emphasizes the need for Extension educators to facilitate *learning* instead of just *transferring information*. Röling and Pretty state, "Extension workers must help farmers walk the learning path" (p. 186). All three lessons, Röling and Pretty contend, will help farmers overcome barriers to adopting sustainable practices. Röling and Pretty explain that "the success of sustainable agriculture therefore depends not just on the motivations, skills, and knowledge of individual farmers, but on action taken by groups or communities as a whole" (p. 186). Similarly, Vanclay and Lawrence (1994) state that:

Extension agents considered farmers who failed to adopt new techniques to be recalcitrant and irrational. Farmers' attitudes and their lack of knowledge were considered to be main barriers to adoption. Little consideration was given to farmers' point of view. The idea that resistance or reluctance to change might have some logical basis was never considered. (p. 60)

The importance of understanding the learning needs of farmers is also evident in Lasley, Padgitt, and Hanson's (2001) study to determine the extent to which farmers had adopted electronic communications. They found that Iowa farmers preferred one-on-one and personalized communication, even if they received some information electronically. Specifically, farmers preferred on-farm demonstrations and farmer involvement in applied research, activities well suited to Extension educators. The findings suggest that telecommunications is not going to replace Extension approaches but perhaps actually create more demand for agents to help farmers understand and apply the information through personalized, person-to-person learning activities.

The Methodological Challenge: Consistency versus Flexibility

Qualitative researchers point to ways their research reflects credibility and trustworthiness, terms that parallel the concepts of validity and reliability for quantitative researchers. Trustworthiness comes from research methods that are replicable from one context to the next. Consumers of qualitative research have more confidence in research that is consistent across various contexts.

Our focus group protocol called for us to ask probing follow-up questions to interesting or unexpected answers. Consequently, we followed a number of "rabbits" down rabbit holes even when we didn't know exactly where those rabbit holes would lead. What we found – often interesting and unexpected – informed our revised interview protocol for Year Two, and what we found in Year Two will inform our results dissemination and training for Year Three. For example, in Year One, we found that our Virginia farmers favored a number of "hands-on" learning activities such as trying out equipment or farming practices demonstrated by Extension agents or trusted peers. Consequently, in Year Two, we added specific questions about "hands-on learning" that would help us understand more clearly what made this type of learning preferable to many farmers. For example, in focus groups, we would ask:

Could you give us some examples of hands-on activities that have been especially helpful to you? (One response: "Artificial insemination.")

Our practice of refining our interview questions based on previous focus groups is sometimes referred to as a "rolling interview guide" (Stewart et al., 2007). Although this procedure has the advantage of adapting the learning from one focus group to the next one, it also has the disadvantage of lessening the researcher's ability to compare responses on the same questions across groups, potentially lessening the trustworthiness of the findings. In our attempt to balance both issues, we typically leaned toward refinement versus rigidity. We reasoned that generalizability of findings, not a goal of

qualitative research, was less salient to us than following our participants where they lead us and then probing for a deeper, richer understanding of what they were telling us about how farmers learn.

One surprising finding that emerged was that some farmers found the focus group format itself to be a useful way to learn. We believe that this finding emerged directly because we did not over-control the discussion, but let it diverge from the central topic (how farmers learn) from time to time. For example, in one focus group, participants began to feel free to ask other participants farming related questions that they were particularly interested in (e.g., “what’s the (nonchemical) process for decaffeinating coffee?”). Below is an extended example of how our questions led to seemingly unrelated discussions (“rabbit holes”) that ended up addressing participant concerns and interests:

Moderator Question: “...what can Extension agents and specialists do to make learning better for you and other organic farmers?”

“ It would be nice if the Extension agents had alternatives to spraying and chemical fertilizer as alternatives to some of our problems; if I want to change the soil and get rid of bugs or whatever if they had something better than Roundup...”

“...a good fertilizer (that is only) \$3 dollars for fifty pounds (is) 4-2-3 Perdue chickens. That’s cheap.”

“It’s not organic though.”

“Organic or maracol or RMI approved.”

“Really?”

“Is it chicken manure?”

“Chicken manure and it’s 4-2-3.”

“It’s manure?”

“Yeah.”

“With no bedding mixed in with it?”

“It’s according to the pound, pallets.”

“Is it beaded or like rabbit food?”

“Like rabbit food, a little bit thicker...and so now I am able to gauge how much I am putting down...”

(Moderator question toward the end of the focus group): Does anyone have anything to add on this question (about) what Extension agents and specialists can do to make learning more effective or more appropriate for you or other organic producers?

“This format here seems to be fairly useful. And there is a lot of wisdom that’s been thrown around and a lot of us are growing different things but if we could group some of us... so when we get in the same room we can swap spit and get some ideas.”

“That’s a good idea. If you had groups that would identify with the types of products they are growing. And you gathered people together (who grow) those specific crops -- like, my main interests are apples and grapes. I like to synergize with people that have those specific problems or interests. (We) can be helpful to one another.”

“Then you can get down to the nitty gritty.”

“That’s it. Yes.”

“Then you can have your relevant (university Extension) expert. I mean if you do fruit trees, Dr. ____ would be here or whatever. Then you can get down to the nitty gritty because there is a lot things you’ve learned that somebody else might be interested in.”

We doubt that the participants would have experienced the focus group as a useful learning format if we had not let them deviate from our questions to their own interests from time to time. As we look back on our decisions to either stay with the interview protocol or allow participants leeway to move to other topics, we developed our own decision rules. Generally, we would allow groups some range in their discussions as long as we sensed that they were building rapport and saw value in what they were talking about. We would ask ourselves, “Does where they want to take me add something to this discussion?” If they thought it was useful, we would generally let the conversation wind a bit.

Variations in the protocol also resulted from state to state and from year to year because of the different steering committees that we set up in each locale to support program ownership and buy-in. For example, because the steering committee of regional program leaders in Tennessee was particularly interested in whether age was related to the use of the Internet, the steering committee added questions to get at this issue. In doing so, they became more interested and invested in the outcome of the focus groups.

In focus groups, participants engage in synergistic discussions in which one person elaborates on another’s thoughts. Consequently, one gets multiple perspectives that enriches the understanding of the topics discussed. We saw this, for example, in the reasons farmers gave for attending extension classes. They would ask themselves, would it save me time or money? Would it help me connect with others? Would I learn

something new and useful that is supported by research? Also, in a follow-up group, Extension agents discussed other reasons that stood out to them but not to us -- the issue of legacy. Many farmers, they told us, hoped to improve their farming so that they could pass down a meaningful family legacy, the farming business, to their children and grandchildren. While this issue is not as quickly shared as others, it reflects a commitment to family and a way of life that may be as big a motivation to improve their business as any.

The focus group leaders in our study were the second (Virginia), third (Tennessee) and fourth (Louisiana) authors of this paper. Each could have assigned the focus group leadership to others, but didn't. We chose to be focus group leaders because this process brought us closer to our participants and their experiences. In academia it seems that the more "successful" people become, the more distant they are from those they first set out to serve. Teachers become administrators. Researchers hire assistants to collect their data. Highly successful researchers never even have to meet their subjects. We found through this project that there were advantages to our more involved roles. Being a focus group leader gave us a chance to get out of the office and connect with and get to know our participants. We found it to be a more human way to learn and evaluate. We enjoyed being part of a comfortable experience and found that what we learned from the farmers helped us understand their world a little better. Most of us were familiar with that world, but because of working at a university, we don't have as many opportunities to return to it as we would like. We also liked the "you-are-one-of-us" feel that this experience gave us.

Of course, participatory models have down sides. The farmers chosen by the steering committees were not always the same farmers we would have chosen. And, of course, soliciting input from a wide range of constituents takes time to listen and follow through on. The flexibility we took in refining our focus group and "chasing rabbits" has down sides as well. If we were more structured, we would have been more efficient and on target. Getting off topic isn't always good. At the same time, we learned that sharing the planning and agenda, rather than rigidly holding to our agenda alone, and using what we learned from one focus group to another lead to useful information and a sense of partnership and empathy that enriched us all.

Implications for Agricultural Education

To enhance ownership, increase authenticity of the data, and make better use of the findings, focus group facilitators should:

- Be flexible with the interview protocol to allow learners to explore nuances of the topics at hand;
- Invest in co-learning with focus group participants rather than maintaining a "focus-group-leader-as-expert" model;
- Set boundaries for focus group discussion that give flexibility but don't take the group too far from the intended topic or compromise the voice of any participants; and
- Learn to know when to let a group wander from the topic and when to bring them back to the topic at hand.

- To improve the practice of agricultural education, educators should:
 - Use focus groups to not only gather data about a phenomena but as a way to help farmers connect with each other; and
 - Train farmers to conduct focus groups with each other to better meet farmer needs.

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